

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re REISSUE PATENT APPLICATION of)
HARRY M. O'SULLIVAN)
U.S. Patent No. 4,697,281)
Title: CELLULAR TELEPHONE DATA)
COMMUNICATION SYSTEM AND)
METHOD)
Issued: September 29, 1987)

DECLARATION

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

I, Harry M. O'Sullivan declare that

1. I am the inventor named in United States Patent No. 4,697,281 issued on September 29, 1989 based on Application Serial No. 839,564 filed March 14, 1986.

2. Prior to the filing of my application, I conveyed the details of my invention to my attorney, Daniel W. Sixbey. My work with Mr. Sixbey also included review of the content of all the prior art known to us at that time.

3. Mr. Sixbey took primary responsibility for the final preparation of my application prior to its filing.

4. I carefully reviewed the drawings, specification and claims at the time that I executed the formal papers for my application, and I found the description of my invention to be accurate. At the time I executed the application, I was generally familiar with the purpose of patent claims and I

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believed that the claims accurately described my invention.

5. Application Serial Number 839,564 was the first application in which I was named as an inventor and my participation in its preparation was my first exposure to the process of having an application for patent prepared and filed in my name. I am not trained in Patent Law, and this was my first experience in reviewing and approving the scope of patent claims to be sought. I did generally discuss the meaning and scope of the claims as originally filed and the criteria of patentability and I believed, at the time, that I understood them correctly.

6. I believed at the time I executed the application that patent protection could not be obtained for any aspects of my invention that were obvious to me at the time of my invention. My evaluation and approval of the claims sought in my application was based on this erroneous understanding of the unobviousness requirement.

7. By virtue of the events following issuance of my patent on September 29, 1989, as outlined below, I have come to believe that, through error without any deceptive intention, my patent is wholly or partly inoperable by reason of my claiming less than I had a right to claim in my patent.

8. At the time of my invention described in U.S. Patent No. 4,697,281, I was employed by Spectrum Cellular Communications Corporation, assignee of my patent and manufacturer of equipment for cellular telephone systems. Since the issuance of my patent, my responsibilities at Spectrum Cellular Communications Corporation have included, on occasion, the review of patents issued to other inventors. In reviewing these patents, I became more familiar with the operation of patent claims, and I came to realize that the claims in

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these other patents provide greater coverage than I had previously thought was possible.

9. Through further study and discussions with my attorneys, I now understand that my previous understanding of patentability requirements was in error. I now believe that neither the references cited by the examiner, nor any references of which I am aware, render "obvious," as defined by the U.S. Patent laws, several specific and important functions performed by my invention which will be described below.

10. As I believe I was the original, first, and sole inventor of the circuit means for performing the specific and important function referred to in paragraph 9, I now realize that I failed to claim all that I had a right to claim regarding the invention disclosed in my application.

11. First, none of the claims (1-25) in my original application was directed to the ability of my device to receive cellular call placement instructions from a portable computer, and then to act on these instructions to place a cellular call using the cellular transceiver. As disclosed in my original application, conventional mobile cellular telephone units typically include a transceiver for sending and receiving radio telephone signals, a control unit for controlling the operation of the transceiver unit and a cellular bus interconnecting the mobile transceiver and control unit. My invention included the manner by which a portable computer could be used to control the operation of a mobile cellular telephone unit to place a cellular telephone network call. New claims 26-28 are directed to this aspect of my invention. In particular, new independent claim 26 is directed to a cellular computer interface device comprising receiving means for receiving instructions from a portable

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computer, processing means connected with the receiving means for interpreting the instructions received from the portable computer and for generating cellular transceiver control signals in response to the instructions, and transmitting means connected with the processing means for receiving the cellular transceiver control signals and generating signals compatible with the cellular bus, wherein the transmitting means transmits the bus-compatible signals to the bus to cause the cellular transceiver to place a cellular telephone network call. The dependent claims 27 and 28 include further limitations with respect to the interfaces between the computer and receiving means and between the processing means and the cellular bus. Although these operations are clearly detailed in the issued patent at Col. 11, lines 38-64, in Figure 3, and in other places, none of the claims submitted in the original application were directed to this function of my device. So far as I am aware, I was and am the first and sole inventor of the device specified by the new claims 26-28. So far as I am aware, the references cited by the examiner and the references known to me and existing at the time of my invention do not render this concept obvious.

12. Second, none of the claims (1-25) in my original application was directed to the ability of my device to evaluate signals sensed on the cellular bus and to select different modes of operation of the device based on the signals sensed. New claim 29 is directed to this aspect of my invention. Specifically, this claim is directed to a cellular interface device comprising interface means for connecting to a cellular bus, sensing means connected to the interface means for sensing signals on the cellular bus, control signal generating means connected to the interface means for generating control signals and transmitting the signals

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to the cellular bus, and processing means connected to the sensing means and to the control signal generating means for receiving and evaluating signals sensed by the sensing means. The claim further specifies that the processing means compares the sensed bus signals to expected values for these signals and operates to select a first operating mode of the control signal generating means when the sensed signals correspond to the expected signals, and selects a second operating mode of the control signal generating means when the signals do not correspond to the expected signals. Although this operation is clearly shown in the software appendix included in the specification of the original patent application, no claims directed to this feature were sought. (As a courtesy to researchers who may not wish to review the software appendix, a brief reference to the software operation has been added to the detailed description in the reissue application.) Again, so far as I am aware, no reference in existence at the time of my invention or cited by the examiner renders this concept obvious.

13. Third, none of the claims (1-25) in my original application was directed to the ability of my device to control a switching device to operably connect transmitting and receiving devices such as a modem to the cellular transceiver. New claims 30-34 are directed to this aspect of my invention. Specifically, claim 30 is directed to a cellular interface device including an external analog signaling device, a bus interface means for connecting external devices to the cellular bus, a switching means for selectably connecting devices to the cellular bus via the bus interface means, and a control means for controlling the switching means, wherein the external analog signaling device may be operably connected by the components described to transmit or receive

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information using the cellular transceiver. I do not believe that any of the references cited by the examiner or known to me to exist at the time of my invention render this concept obvious. Although the specification of the issued patent clearly describes this functionality at Col. 5 lines 42-51, Col. 7 lines 5-8, Col. 7 lines 43-49, Col. 12 lines 8-14, and in other places, no claims directed to this functionality were submitted with the original application.

14. Fourth, none of the claims (1-25) in my original application was directed to the ability of my invention to provide an acceptable error detection and correction protocol that could effectively deal with transmission induced error occurring below a predetermine frequency without resorting to retransmission of data. New claims 35-37 are directed to this aspect of my invention. Specifically, claim 35 is directed to an interface system for correcting error in digital data transmitted and received between first and second digital processing units via a cellular radio telephone link established between a mobile transceiver unit which is adapted to be interfaced with the first digital data processing unit and one of a plurality of fixed transceiver units. Claim 35 further specifies that the interface system comprises mobile signal processing interface means adapted to be connected with the first data processing unit and the mobile transceiver unit and a static signal processing interface means adapted to be connected between the second data processing unit and the one fixed transceiver unit wherein each of said signal processing interface means includes a microprocessor means programmed to form forward error correcting decoding means for receiving the forward error correcting signal generated by the microprocessor of said other signal interface means in association with each group of

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digital data received from said other signal processing interface means and for using said forward error correcting signal to detect errors and to correct those errors in the associated group of digital data when the number of detected errors is below a predetermined amount. Claims 36 and 37 further limit the manner in which the static signal processing unit is connected to the plurality of fixed transceiver units of the cellular system so the data transmission can continue during movement of the mobile transceiver throughout the geographic cells of the cellular system. Although described at col. 8, line 5 through col. 9, line 11, none of the claims of my patent is directed to these important features set forth in claims 35-37. The prior art neither discloses nor renders obvious the subject matter of claims 35-37.

15. In summary, none of the claims issued in my Patent Number 4,697,281 covered the aspects of my invention that are described in new claims 26-37. The failure to submit and prosecute claims of the scope of claims 26-37 derived from my failure to appreciate that patentable subject matter need only be unobvious to those of ordinary skill in the art. As a result, I failed to direct my attorney's attention to these additional features of my invention, which I believe were novel and unobvious at the time of my invention, and no claims directed to these features were submitted.

16. The defects in my patent as outlined above arose because of my inexperience as a new inventor and a failure in communicating with my attorney, and not as the result of deceptive intention on my part.

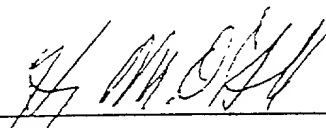
17. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a) and 1.175(a)(7).

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18. I have reviewed and understand the contents of the above identified specification, as revised, including Claims 1-37.

19. I believe that I am the original, first, and sole inventor of the subject matter which is claimed and for which a patent is sought.

20. All statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and such willful false statements may jeopardize the validity or the application or any patent issued thereon.



Harry M. O'Sullivan

10/12/89
Date

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re REISSUE PATENT APPLICATION of)
HARRY M. O'SULLIVAN)
U.S. Patent No. 4,697,281)
Title: CELLULAR TELEPHONE DATA)
COMMUNICATION SYSTEM AND)
METHOD)
Issued: September 29, 1987)

POWER OF ATTORNEY

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

I hereby appoint the following attorneys to
prosecute this application and transact all business in
the Patent and Trademark Office connected therewith:
Charles M. Leedom, Jr., Reg. No. 26,477; Daniel W.
Sixbey, Reg. No. 20,932; Stuart J. Friedman, Reg.
No. 24,312; Gerald J. Ferguson, Jr., Reg. No.
23,016; Joan K. Lawrence, Reg. No. 29,940; David
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Tel: (703) 790-9110

H. M. O'Sullivan

Harry M. O'Sullivan

10/12/59

Date

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NOT
This will acknowledge receipt in re filing of reissue
patent application of:

07/414468

Harry M. O'Sullivan

U.S. Patent No. 4,679,281

For: Cellular Telephone Data Communication System and Method

Issued: September 29, 1987

Specification (14 pgs); Claims: 11

Drawings: 4 sheets (Informal); Abstract

Declaration

Power of Attorney

Request for Abstract of Title

Offer to Surrender Original Patent under 37 CFR 1.178

Assent to Reissue

Request for Transfer of Drawings

Issue Fee Transmittal Letter (2 cys)

Check No. 4363 in the amount of \$476.00

PLEASE STAMP WITH SERIAL NO.

Docket: 89-R 291-USA-L

9/29/89

RECEIVED

OCT 30 1989

SUREY, FRIEDMAN,
& FERGUSON

FD-2740-4955880

Applicant or Patentee: Harry M. O'Sullivan
Serial or Patent No. _____ Docket No. 89-R291-USA-L
Filed or Issued: _____
For: CELLULAR TELEPHONE DATA COMMUNICATION SYSTEM AND METHOD

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) AND 1.27 (c)) - SMALL BUSINESS CONCERN

I hereby declare that I am

- ☐ the owner of the small business concern identified below:
☒ an official of the small business concern empowered to act
on behalf of the concern identified below:

NAME OF CONCERN Spectrum Cellular Corporation
ADDRESS OF CONCERN 2710 Stemmons Freeway, 800 North Tower
Dallas, Texas 75207

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 4(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, entitled

CELLULAR TELEPHONE DATA COMMUNICATION SYSTEM AND METHOD

by inventor(s) Harry M. O'Sullivan
described in

- ☐ the specification filed herewith
☒ application Serial No. _____, filed _____
☐ Patent No. _____, filed _____

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights

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to the invention is listed below and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities.
(37 CFR 1.27)

NAME _____
ADDRESS _____
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

NAME _____
ADDRESS _____
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING Dana C. Verrill
TITLE OF PERSON OTHER THAN OWNER President
ADDRESS OF PERSON SIGNING 2710 Stemmons Freeway Suite 800 North Tower
Dallas, TX 75207

SIGNATURE _____

DATE 10/12/89